

Water-Data Report 2008

**08121000 Colorado River at Colorado City, TX**

Upper Colorado Basin  
Colorado Headwaters Subbasin

LOCATION.--Lat 32°23'33", long 100°52'42" referenced to North American Datum of 1927, Mitchell County, TX, Hydrologic Unit 12080002, on right bank at Colorado City, 3,517 ft upstream from bridge on State Highway 377, 4,100 ft upstream from the Texas and Pacific Railroad Company bridge, 1.3 mi downstream from bridge on Interstate Highway 20 and U.S. Highway 80, 1.6 mi upstream from Lone Wolf Creek, and at mile 796.3.

DRAINAGE AREA.--3,966 mi<sup>2</sup> of which 2,381 mi<sup>2</sup> probably is noncontributing.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Nov. 1923 to Aug. 1925 (published as "at Colorado"), May 1946 to current year.

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: May 1946 to Sept. 1954, Nov. 1956 to Oct. 2003

BIOCHEMICAL DATA: July 1960 to Sept. 1973

RADIOCHEMICAL DATA: Jan. 1981 to May 1981

SPECIFIC CONDUCTANCE: May 1946 to Sept. 1954, Nov. 1956 to Sept. 2004

WATER TEMPERATURE: Nov. 1952 to Sept. 1954, Nov. 1956 to Sept. 2004

REVISED RECORDS.--WSP 1512: 1946(M), WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,030.16 ft above NGVD of 1929. Nov. 28, 1923, to Aug. 31, 1925, nonrecording gage at site 1.4 mi downstream at different datum. May 9 to Aug. 5, 1946, nonrecording gage at site 185 ft upstream at present datum. Satellite telemeter at station.

REMARKS.--Records good. Since water year 1952, at least 10% of contributing drainage area has been regulated. The Colorado River Municipal Water District diverts low flow into an off channel reservoir 3 miles upstream for brine disposal. There are numerous diversions from Lake J.B. Thomas for municipal use and oil field operations. No flow at times. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--5 years (water years 1947-51) prior to completion of Lake J.B. Thomas, 102 ft<sup>3</sup>/s (73,660 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1910, 35.9 ft, June 20, 1939, present site and datum, based on floodmarks 1,000 ft upstream and 3,740 ft downstream from gage; discharge, 66,000 ft<sup>3</sup>/s, by slope-area measurement of peak flow at site 2.5 mi upstream from gage.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS 1947-1951: Maximum discharge, 24,900 ft<sup>3</sup>/s, July 6, 1948, gage height, 22.37 ft, from floodmark; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 851 ft<sup>3</sup>/s, June 19, gage height, 10.69 ft; minimum daily discharge, 0.00 ft<sup>3</sup>/s, June 16.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**  
**DAILY MEAN VALUES**

<b>Day</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>1</b>	5.1	0.16	0.32	0.27	0.25	0.35	0.27	0.09	0.03	0.12	0.05	0.40
<b>2</b>	0.97	0.16	0.33	0.27	0.57	0.41	0.26	0.07	0.03	0.11	0.05	0.40
<b>3</b>	0.31	0.19	0.27	0.28	3.4	0.40	0.32	0.07	0.03	0.09	0.03	0.41
<b>4</b>	0.22	0.21	0.27	0.30	0.55	0.39	0.30	0.08	0.02	0.07	0.04	0.40
<b>5</b>	0.37	0.17	0.33	0.32	0.32	0.42	0.25	0.11	0.03	0.05	0.04	0.40
<b>6</b>	0.26	0.13	0.38	0.32	0.26	0.42	0.26	0.14	0.04	0.05	0.03	0.39
<b>7</b>	0.19	0.12	0.27	0.34	0.27	0.46	0.24	0.17	0.04	0.04	0.05	0.38
<b>8</b>	0.16	0.18	0.24	0.34	0.67	0.44	0.20	0.14	0.03	0.04	0.04	0.38
<b>9</b>	0.15	0.21	0.32	0.32	0.46	0.55	0.91	0.08	0.03	0.05	0.03	0.43
<b>10</b>	0.16	0.22	0.48	0.34	0.31	0.53	1.8	0.09	0.03	0.06	5.1	0.54
<b>11</b>	0.16	0.24	1.8	0.34	0.33	0.46	245	0.05	0.02	0.07	23	1.0
<b>12</b>	0.16	0.24	0.52	0.37	0.30	0.45	126	0.05	0.03	0.06	0.42	19
<b>13</b>	0.17	0.23	0.56	0.37	0.29	0.48	18	0.05	0.03	0.07	0.27	61
<b>14</b>	0.16	0.22	0.53	0.38	0.30	0.45	12	11	0.02	22	0.18	114
<b>15</b>	0.14	0.18	0.35	0.38	0.30	0.45	0.39	3.2	0.01	3.9	0.17	61
<b>16</b>	0.16	0.18	0.23	1.0	0.35	0.48	0.22	0.28	0.00	1.4	0.20	12
<b>17</b>	0.15	0.19	0.22	0.53	1.2	0.52	0.19	0.13	0.01	0.19	2.2	4.1
<b>18</b>	0.13	0.20	0.40	0.39	0.78	1.6	0.14	0.09	34	0.13	0.76	5.0
<b>19</b>	0.13	0.20	4.0	0.35	0.42	0.64	0.14	0.05	636	0.08	0.38	1.6
<b>20</b>	0.11	0.21	0.40	0.31	0.39	5.9	0.15	0.05	404	0.06	0.31	0.81
<b>21</b>	0.11	0.22	0.24	0.30	0.36	0.51	0.17	0.06	224	0.07	0.29	0.75
<b>22</b>	0.11	0.20	0.28	0.32	0.38	0.32	0.17	0.06	84	0.05	0.70	0.71
<b>23</b>	0.09	0.26	0.27	0.32	0.38	0.32	0.16	0.05	39	0.05	0.45	0.70
<b>24</b>	0.08	0.27	0.28	1.2	0.35	0.30	0.18	0.06	3.0	0.06	0.34	0.74
<b>25</b>	0.07	0.37	0.28	3.4	0.36	0.29	13	0.09	0.22	0.08	0.33	0.81
<b>26</b>	0.08	0.42	0.30	0.44	0.34	0.28	36	0.09	0.14	0.06	0.32	0.79
<b>27</b>	0.11	0.31	0.29	0.28	0.32	0.29	24	0.09	2.8	0.03	0.30	0.76
<b>28</b>	0.12	0.28	0.27	0.27	0.31	0.27	13	10	0.28	0.03	0.34	0.76
<b>29</b>	0.18	0.27	0.28	0.30	0.36	0.29	1.3	0.21	0.47	0.05	0.34	0.76
<b>30</b>	0.19	0.27	0.28	0.28	---	0.36	0.16	0.09	0.28	0.23	0.39	0.76
<b>31</b>	0.17	---	0.28	0.31	---	0.33	---	0.04	---	0.09	0.41	---
<b>Total</b>	10.67	6.71	15.27	14.94	14.88	19.36	495.18	26.83	1,428.62	29.44	37.56	291.18
<b>Mean</b>	0.34	0.22	0.49	0.48	0.51	0.62	16.5	0.87	47.6	0.95	1.21	9.71
<b>Max</b>	5.1	0.42	4.0	3.4	3.4	5.9	245	11	636	22	23	114
<b>Min</b>	0.07	0.12	0.22	0.27	0.25	0.27	0.14	0.04	0.00	0.03	0.03	0.38
<b>Ac-ft</b>	21	13	30	30	30	38	982	53	2,830	58	75	578

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2008<sup>2</sup>, BY WATER YEAR (WY)**

	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>Mean</b>	31.8	11.6	4.84	3.78	8.54	18.4	31.2	84.0	72.0	18.2	37.3	48.2
<b>Max</b>	339	267	49.6	33.6	99.0	595	332	1,047	745	197	684	817
(WY)	(1987)	(2005)	(1992)	(1992)	(1957)	(2000)	(1957)	(1957)	(1982)	(1961)	(1971)	(1962)
<b>Min</b>	0.00	0.00	0.03	0.05	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.00
(WY)	(1969)	(1956)	(1955)	(1971)	(1971)	(1956)	(1955)	(1970)	(1953)	(1974)	(1954)	(1954)

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**SUMMARY STATISTICS**

	<b>Calendar Year 2007</b>	<b>Water Year 2008</b>	<b>Water Years 1952 - 2008<sup>Z</sup></b>
<b>Annual total</b>	3,561.21	2,390.64	
<b>Annual mean</b>	9.76	6.53	30.9
<b>Highest annual mean</b>			143
<b>Lowest annual mean</b>			0.34
<b>Highest daily mean</b>	458	Aug 20	9,560
<b>Lowest daily mean</b>	0.07	Oct 25	0.00
<b>Annual seven-day minimum</b>	0.09	Oct 20	0.02
<b>Maximum peak flow</b>		851	17,700
<b>Maximum peak stage</b>		10.69	28.58
<b>Annual runoff (ac-ft)</b>	7,060	4,740	22,380
<b>10 percent exceeds</b>	12	1.9	22
<b>50 percent exceeds</b>	0.38	0.28	0.41
<b>90 percent exceeds</b>	0.18	0.05	0.00

<sup>Z</sup> Period of regulated streamflow.

